

Memorandum

TO: TRANSPORTATION AND
ENVIRONMENT COMMITTEE

FROM: Hans F. Larsen

**SUBJECT: PAVEMENT MAINTENANCE
STATUS REPORT AND FUNDING
STRATEGY UPDATE**

DATE: February 11, 2015

Approved



Date

2/20/15

RECOMMENDATION

1. Accept status report on San Jose pavement maintenance program and an update on current funding strategies to improve Citywide pavement conditions.
2. Recommend a cross-reference to the March 24, 2015 City Council agenda to receive report and discuss near-term funding strategies that includes policy advocacy for increased funding from federal, state, and regional sources, along with consideration of increased City sources from possible future ballot measures.

BACKGROUND

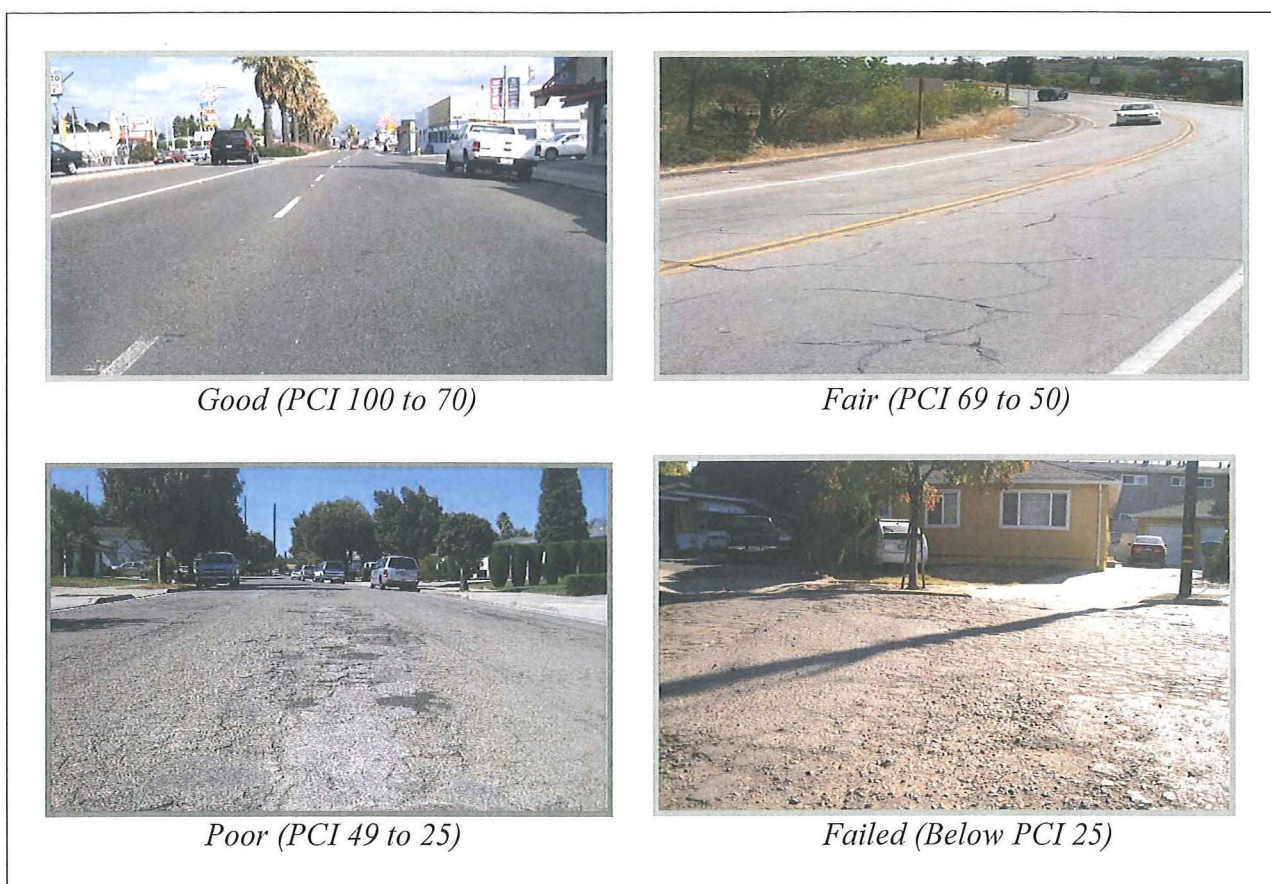
The 2,410 miles of paved streets in San Jose are the City's largest infrastructure asset with an estimated value of approximately \$4 billion. As a result of age and inadequate investment for maintenance, particularly in the past decade, the overall condition of the system is steadily deteriorating. San Jose's street system is rated overall in "fair" condition with a Pavement Condition Index (PCI) rating of 63 (see Figure 1 for information on PCI rating system). Due to insufficient funding for maintenance, the backlog of deferred maintenance has grown from \$250 million (in 2010) to \$504 million (in 2015).

In 2010, a City Council Study Session on the topic of pavement maintenance was held and since then staff has provided annual reports to the Transportation and Environment Committee on the status of pavement conditions and strategies to increase needed investment. In 2010, the City established a goal of improving pavement conditions to an overall "good" rating with a PCI of 70 by 2020. To accomplish an overall "good" rating would have required an average investment of \$100 million annually.

Since 2010, the City's available funding for pavement maintenance has been on average about \$20 million annually with the primary sources being federal/state gas taxes, County vehicle registration fees and City development taxes. For 2014-2015, the City Council has allocated \$56

million within the Traffic Capital Program for pavement maintenance (excluding funds rebudgeted as part of the 2013-2014 Annual Report). This increase is largely due to the City Council's allocation of an additional \$23 million for pavement maintenance from increased private development construction taxes typically allocated to transportation needs, additional one-time State gas tax revenues, and a "frontloading" of \$13 million in Federal gas tax revenues to cities in the Bay Area for pavement maintenance, in accordance with policies from the Metropolitan Transportation Commission (MTC).

Figure 1 – Pavement Condition Index (PCI) Rating System



In 2011, and in response to the reality of insufficient funding to maintain all City streets, the City Council provided direction to staff to use available funding towards the City's most important and heavily travelled major streets referred to as the Priority Street Network and to repair safety-related potholes on all City streets in a timely manner. Since then, and as a result of the City Council's direction, the condition of the Priority Street Network has generally stabilized. Unfortunately, as a result of insufficient funding, no preventive maintenance or rehabilitation work has been performed on the City's local neighborhood streets, which make up about two-thirds of the street network, and only a limited amount of one-time maintenance on the other major streets not included in the Priority Street Network is planned.

The public is increasingly expressing concern about the condition of City pavement conditions. In the annual survey of San Jose residents conducted for the City Auditor's Office in 2014, residents rated the City's performance in "repairing streets" as the worst among a comprehensive list of City services.

A "Fresh Start"

Because the City has not come close to reaching its funding target of \$100 million annually for pavement maintenance to achieve an overall "good" condition by 2020, staff proposes to reset expectations about what is possible in the near future. Additionally, the City's political leadership has changed significantly since the City Council Study Session in 2010 on pavement maintenance. There are seven members of the City Council that did not participate in that Study Session. As such, the following considerations support taking a "fresh start" to the City pavement maintenance strategy:

- A comprehensive field review of City street pavement conditions was conducted in 2014 using expert consultants to update baseline data and the DOT's computerized pavement management system, which are used for rating street conditions and identifying the location, timing, and type of pavement maintenance treatments needed for the most efficient use of available funds.
- DOT continues to expand and apply a diverse set of proven pavement maintenance treatments in accordance with industry best practices as paving processes, materials, and technologies advance, including the use of recycled in-place resurfacing and rubberized asphalt products where possible. Other treatments used by DOT include crack sealing, slurry sealing, microsurfacing, full and thin overlay resurfacing, and reconstruction. The estimated costs for pavement maintenance work includes the use of these various treatment types at the appropriate time and location.
- A new 10-year horizon from 2015 through 2024 is proposed for meeting the City's funding and conditions goals.
- Two funding goal scenarios are now suggested and include the original goal of improving overall pavement conditions to a "good" rating (PCI 70) in 10 years and a more modest goal of retaining overall pavement conditions in the current "fair" condition (PCI 63).

As a positive development, there is a now considerable focus on investing in transportation infrastructure at the federal, state, regional/county and city levels. This is due to an improved economy creating political opportunities to invest, a recent reduction in gas prices suggesting that a gas tax increase might be viable, and a widespread understanding that transportation systems largely built 40 to 60 years ago are aging and in need of rehabilitation. This report discusses the various funding options being considered and their applicability to addressing San Jose's pavement maintenance needs.

ANALYSIS

Current Pavement Conditions, Funding, and Trends

As illustrated in Figure 2, the City's pavement maintenance program can be categorized into three groups: Pothole Repairs and Program Management (fully funded); Major Streets (partially funded) and Local and Neighborhood Streets (unfunded).

Figure 2 – San Jose “Pavement Maintenance Pyramid”

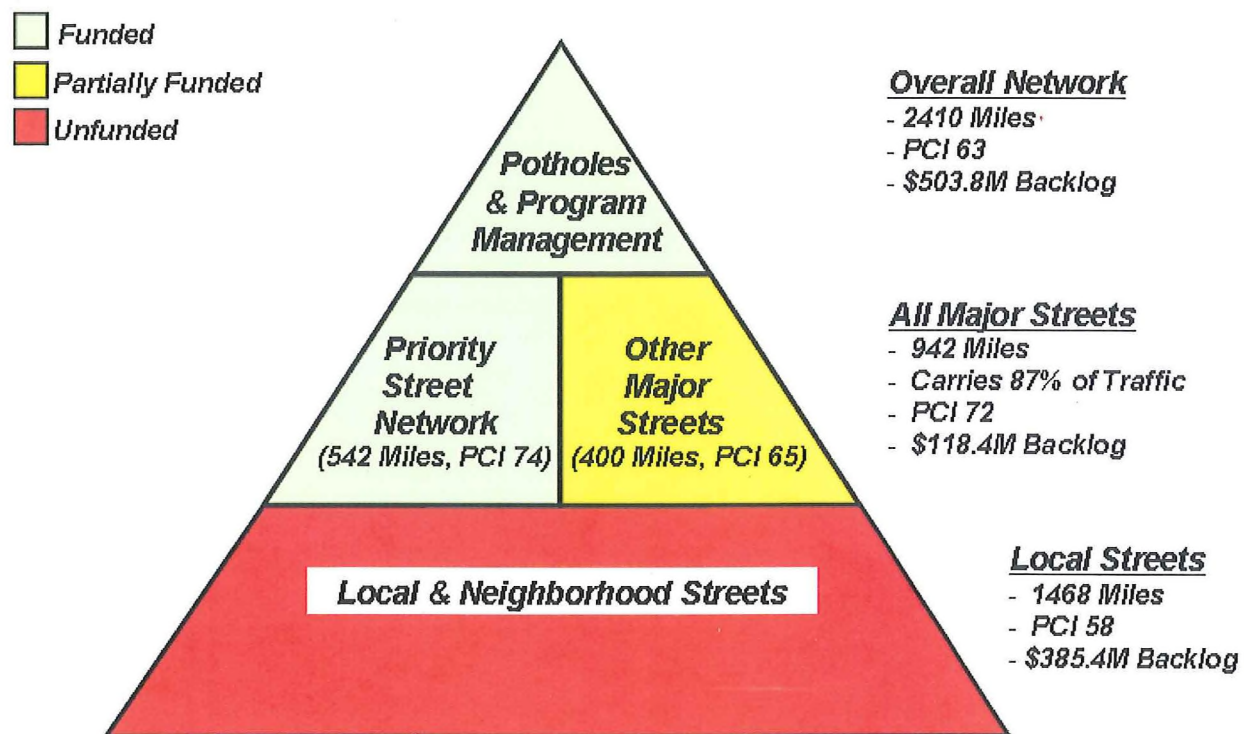


Figure 2 also describes the conditions of the street network as follows:

- The overall condition of the City's entire 2,410-mile street network is rated in "fair" condition at a PCI of 63. There is currently a backlog of one-time maintenance needs totaling \$503.8 million.
- The City's 942-mile major street system is rated as "good" with a PCI of 72. There is a one-time backlog on the major street system of \$118.4 million. The major street system is about one-third of the overall street network, yet it carries 87% of all citywide traffic.
- There are two sub-street networks within the major street system: the Priority Street Network and other major streets. The Priority Street Network is 542 miles of the City's most important and heavily traveled streets. The other major streets system comprises the

remaining 400 miles of heavily traveled major streets not in the Priority Street Network. The current overall condition of the Priority Street Network is rated as “good” with a PCI of 74, and the overall condition of the other major streets system is rated as “fair” with a PCI of 65. Current funding levels allow for the on-going maintenance needed to sustain the Priority Street Network in good condition at or slightly above 70 PCI. However, funding levels are not sufficient enough to perform on going maintenance on the other major streets that is needed to raise their overall condition from “fair” to “good”.

- The City’s 1,468 miles of local neighborhood streets have a PCI of 58, a rating in the lower range of the “fair” category and with many streets at risk of rapidly falling into a “poor” condition where the cost to rehabilitate a street can be about five times higher than if they were preventively maintained on an industry recommended schedule. No funding is currently being allocated for preventive maintenance or rehabilitation on local neighborhood streets. The one-time backlog of maintenance needs is \$385.4 million.

Over the next ten years, it is projected that currently available funding will total about \$226 million or about \$22.6 million annually. The graph in Attachment 1 identifies the individual funding sources and the total estimated amount available. The projections are based on the following assumptions:

- Federal and state gas tax allocations to cities will remain consistent, although funding levels could decline compared to more recent levels due to improved fuel efficiency and increased purchase of hybrid and electric vehicles.
- County vehicle registration fees, managed by the Santa Clara Valley Transportation Authority (VTA), will remain stable.
- City funding from development taxes will drop to a \$4 million annual level starting in 2015-16 as documented in the 2015-2019 Adopted Traffic Capital Improvement Program.
- The City’s General Fund allocates no revenue for pavement maintenance.

If the City only received the currently available revenue for pavement maintenance (\$226 million over next 10 years), the overall condition of the system would significantly deteriorate. The “cost of doing nothing” or maintaining the status quo would be a projected decline of the overall system to PCI 57 in 2020 and PCI 48 in 2025, and an accumulation of deferred maintenance estimated at \$987 million in 2020 and \$1.826 billion in 2025.

Improvement Scenarios and Investment Needs

A significant level of new investment will be needed in order to for City streets to remain in the current “fair” condition (not drop below PCI 63) or to improve to a “good” condition (PCI 70). As shown in Figure 3, the 10-year investment need to “get no worse” is \$683 million and to “improve to good” is \$1.042 billion.

Figure 3 – Ten-Year Investment Scenarios (\$ Millions)

Funding Scenario	Pothole Repair*	Major Streets	Local Streets	Total and Outcomes (PCI and backlog in 2025)
1. Current	\$55 M	\$171 M	\$0	\$226M (\$22.6M annual average) PCI declines to 48; \$1.83B backlog
2. Get No Worse (63 PCI)	\$55 M	\$262 M	\$366 M	\$683M (\$68.3 annual average) PCI stays at 63; \$940M backlog
3. Improve to Good (70 PCI)	\$55 M	\$268 M	\$719 M	\$1.042B (\$104.2M annual average) PCI improves to 70; \$470M backlog

* Includes overall pavement maintenance program management

While the funding scenarios 2 (Get No Worse) and 3 (Improve to Good) above represent a considerable increase in investment and maintenance activity, neither would significantly reduce the backlog of maintenance needs currently at \$504 million. In fact, under scenario 2, the backlog continues to grow at a high rate. The funding levels in each scenario are not enough to eliminate the existing backlog and be able to perform the necessary maintenance work needed to prevent other streets from falling into disrepair. It is not until an average PCI rating of about 80 is achieved, as recommended by the MTC, that the maintenance backlog is reduced to a minimal level. It is estimated that about \$1.5 billion over a ten year period would be needed to obtain an overall 80 PCI rating.

Options for Increased Funding

For the City to stabilize or to improve pavement conditions it will require securing a significant level of new funding, most likely from a variety of funding sources. Fortunately, discussions about increasing investment for transportation infrastructure are currently active at the federal, state, regional, and local levels. Over the past several years, staff from DOT and the City Attorney's Office have worked with the Transportation and Environment Committee to evaluate the most viable funding solutions. They include gas tax, vehicle license tax or vehicle registration fee, county or local sales tax, and local property based bond measures. Vehicle Mileage Tax (VMT) options are being studied by several states including California, but such programs are not likely to be viable in the near-term. A list of viable funding options is summarized in Attachment 2.

Staff believes that Federal and State funding options are not likely to yield a significant amount of revenue for San Jose local pavement needs; in fact these funding sources may be reduced as revenues from gas taxes are generally in decline due to improved vehicle fuel efficiency and a transition to alternative fuel vehicles like electric cars. Also, increasingly these funds are being allocated to "regional" transportation needs and local agencies are expected to provide their own funding solutions for pavement maintenance.

There are now 125 California cities that have initiated their own city sales tax programs with many of them focused on addressing public safety and pavement maintenance. The tax rates range from 1/4% to a full 1%, with most cities enacting a 1/2% local sales tax.

Another widely used funding mechanism for local pavement maintenance needs is from county transportation sales taxes. There are 20 counties in California that have a transportation sales tax program (commonly referred to as “self-help” counties). All of them except Santa Clara County provide funding to cities for local transportation programs like pavement maintenance. The county transportation programs typically allocate 20% to 35% of the funds to cities for local programs, with a range being 15% to 100% (not including Santa Clara County). Examples include: San Mateo County (22.5%), San Francisco (24.6%), and Alameda County (30%).

San Jose has significantly less funding available for pavement maintenance than most other jurisdictions. The lack of any funding from the General Fund is unusual, and the combination of no city sales tax and no funding from a county transportation program has contributed to San Jose’s placement as having pavement conditions well below the community’s expectations. San Jose pavement conditions rank last among all jurisdictions in Santa Clara County and is in the bottom third of all cities in the Bay Area with a ranking of 79 among all 109 jurisdictions.

Of special concern is that many cities ranked below San Jose have recently approved tax measures to fund pavement maintenance. As an example, the transportation sales tax measure approved in Alameda County in November 2014, allocates 30% of the funding to cities, and with this funding, Oakland will be improving their street conditions up from their current PCI of 58, as will Fremont (PCI 61) and Berkeley (PCI 58). In 2011, San Francisco approved a transportation bond measure with \$148 million allocated for pavement rehabilitation. San Jose and San Francisco previously had similar overall pavement conditions. With their increased investment, San Francisco now ranks higher with a PCI of 66 (and climbing), compared to San Jose’s PCI of 63 (and falling).

Suggested Policy Direction and Funding Targets

Staff suggests that the City continue to aggressively pursue an “every available opportunity” advocacy approach for increasing the allocation of pavement maintenance funding for San Jose and to continue to seek sufficient funding to improve overall street conditions to a “good” level (PCI 70) by 2025. This will require a total investment of about \$1 billion over a ten-year period, up from the currently available funding level of \$226 million. The table below in Figure 4 identifies the target funding goals from various sources, none of which are available without additional action at various levels of government.

Figure 4 - Pavement Maintenance Investment Targets (Over Ten Years)

Funding Source	Projected Current Funding Level	Target Funding Level
Federal and State (Gas tax, vehicle license tax)	\$112 M	\$150 M to \$200 M
Regional and County (Sales tax, vehicle registration fee, gas tax)	\$55 M	\$150 M to \$300 M
City (Development taxes, sales tax, property based bond measure)	\$59 M	\$300 M to \$600 M
Total	\$226 million	\$600 million to \$1.1 billion

CONCLUSION

The City has significantly underinvested in pavement maintenance for many years. This has resulted in a decline in the overall condition of the street network and a large backlog of one-time maintenance needs at \$504 million. Unless a significant amount of new funding is obtained in the near future, the City's streets will more rapidly deteriorate and fall into greater disrepair. Projected current funding levels will lead to a street system rated in overall poor condition with a backlog of maintenance needs around \$1 billion by 2024. If this outcome were to occur, it is unrealistic to expect that the City and the community will have the capacity for a recovery.

The positive news is that there are opportunities to address the funding situation and reverse the trend of declining street conditions. The biggest funding responsibility for improving pavement maintenance conditions, however, lies with the City.

COORDINATION

The preparation of this report has been coordinated with the City Manager's Office and the City Attorney's Office.

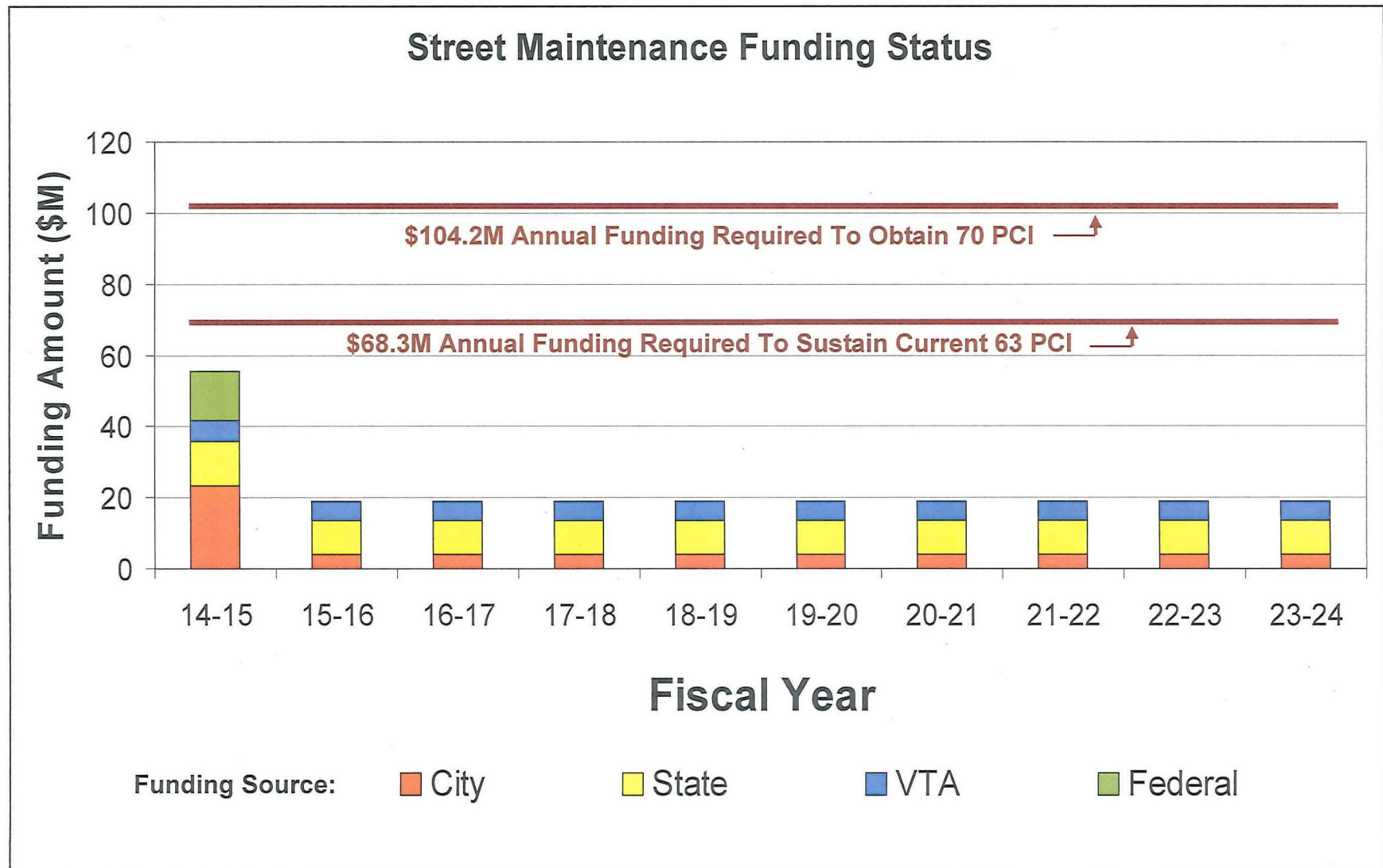
/s/

HANS F. LARSEN
Director of Transportation,

For questions, contact Jim Ortbal, Assistant Director of Transportation at 535-3845.

Attachments

Attachment 1 – Estimated Future Funding for City Pavement Maintenance



Attachment 2 – Options for Increased Pavement Maintenance Funding

Funding Source	Perspectives
1. Federal Reauthorization	The current federal transportation funding program (MAP 21) expires in May 2015. Current annual funding authorization is approximately \$52 billion for all programs. Gas taxes do not cover this cost and the program has been subsidized by the national general fund (\$67 billion since 2008). The Federal gas tax has not been raised since 1993. President Obama has introduced a new 6-year \$478 billion proposal to authorize federal highway, transit, and rail programs. The President’s “Grow America” Act would be funded through a one-time repatriation tax on the approximately \$2 trillion in earnings held overseas by US corporations. In addition to the President’s proposal, Congress will be discussing other potential funding options.
2. State Gas Tax	Currently there is a \$59 billion deferred maintenance backlog on the state’s highway and bridge system. Gas tax funding used to address the state’s needs has fallen steadily from \$2.87 billion in 2003 to \$2.62 billion in 2013. The loss in revenues reflects the decrease in the sale of gasoline from 15.9 billion gallons in 2003 to 14.6 billion in 2013, a drop of 8%. The Governor’s 2015-16 draft budget acknowledges the transportation infrastructure shortfall, but did not propose any specific programs or initiatives to address these needs. The Governor calls on the state’s transportation stakeholders to work together to solve the funding dilemma.
3. State Vehicle License Tax (VLT)	Prior to 2004, California had an annual vehicle license tax (VLT) based on 2% of the vehicle value. In 2004, the VLT was lowered to a 0.65% rate. Consideration has been given to increase the VLT by 1% to 1.65% and distribute the revenue to State, county, city and transit agencies. The <i>California Road Repairs Act</i> that was introduced in 2013 by Transportation California and the Alliance for Jobs, estimates that the increase in the VLT would generate \$3 billion a year. Although this initiative did not make it onto the ballot – raising the VLT continues to be discussed.
4. State Vehicle Mileage Tax (VMT)	A VMT pilot program will explore a potential mileage-based revenue collection system to support maintenance and operations of California’s roads and highways as a potential replacement to the current gas tax. Governor Brown signed a 2012 executive order to put 1.5 million electric vehicles on the road by 2025 adding to the drop in gas tax revenues and the need to investigate innovative funding strategies. The results of the pilot are due no later than June 30, 2018.
5. Bay Area Gas Tax	MTC has received legislative authority to enact a 10-cent Bay Area gas tax to support various transportation investments, subject to 2/3rds voter approval.

Attachment 2 – Options for Increased Pavement Maintenance Funding (Continued)

Funding Source	Perspectives
6. County Vehicle Registration Fee	State legislation allows county transportation agencies to enact a \$10 vehicle registration fee for programs that support highway users like pavement maintenance and traffic signal retiming. In 2010, the VTA obtained voter approval for a program in Santa Clara County that now provides San Jose with \$5 million annually for pavement maintenance. San Jose DOT staff has obtained interest from Senator Beall to consider raising the funding cap for the program up to \$20 annually per registered vehicle.
7. County Sales Tax	Santa Clara County is the only county in California with a transportation sales tax measure that does not allocate funds to cities for pavement maintenance. In 2014, the Silicon Valley Leadership Group explored a new transportation tax measure that would have provided funds to all cities for pavement maintenance with an estimated amount of \$10 million to San Jose. The measure did not go forward, however, the VTA is now exploring a measure for 2016 referred to as Envision Silicon Valley.
8. San Jose Sales Tax	City Administration has recommended to the City Council to seek voter approval for a half-cent sales tax to support essential City services, including funds for pavement maintenance in a proposed amount of approximately \$20 million annually. A sales tax measure was recommended in 2012 and 2014. Polling data indicated public support, but the necessary City Council action was not approved to place the item on the ballot.
9. San Jose Bond Measure	San Jose has used property-based bond measures to fund the rehabilitation of City facilities over the past 15 years. These have included voter-approved programs related to parks, libraries, community centers, fire stations and police facilities, valued at collectively at about \$600 million. Other recent bond programs have supported improvements to the Airport and Convention Center and are proposed for the Regional Wastewater Facility. The City's street system is the largest infrastructure asset not being addressed for rehabilitation investment. Past polling has indicated majority support but not the required two-thirds approval. The City has supported legislation to have the voter threshold reduced to 55%.